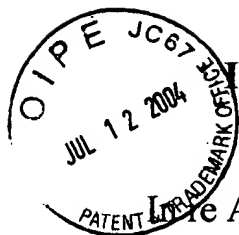# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS AND INTERFERENCES

RECEIVED

JUL 1 9 2004

In re Application of:

JAE-ICK HO

Appeal No. _____ Technology Center 2600

Serial No.:   09/280,541

Examiner: NGUYEN, KEVIN M.

Filed: 30 March 1999

Art Unit: 2674

For: APPARATUS FOR INPUTTING AND DETECTING A DISPLAY
        DATA CHANNEL IN MANUFACTURING A MONITOR

Attn: Board of Patent Appeals & Interferences

APPEAL BRIEF

Mail Stop: Appeal Brief - Patents
Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Pursuant to the appellant's Notice of Appeal filed on 10 May 2004, the

appellant hereby appeals to the Board of Patent Appeals and Interferences from the

final rejections of claims 1-4, 6 and 12-15 as set forth in the Advisory Action (Paper

No. 35) mailed on 21 April 2004.

Folio: P55657
Date: 7/12/04
I.D.: REB/SS/sb

I. REAL PARTY IN INTEREST

Pursuant to 37 CFR §1.192(c)(1), the real party in interest is:

SamSung Electronics Co., Ltd.
#416, Maetan-dong, Yeongtong-gu
Suwon-si, Gyeonggi-do, Republic of KOREA

as evidence by the Assignment executed by the inventor on 15 June 1999 and

recorded in the U.S. Patent and Trademark Office on 21 June 1999, at Reel 010040,

frame 0297.

II. RELATED APPEALS AND INTERFERENCES

There is no other appeal or interference known to the appellant, appellant's

legal representatives, or assignee, which will directly affect, be directly affected by,

or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Status of Claims:

Claims 1-20 are pending in this application. Claims 1-4, 6 and 12-15 stand

finally rejected. Claims 5, 7-11 and 16-20 were allowed in the final Office Action

(Paper No. 30) mailed on 12 December 2003.

Claims Under Appeal:

Appellant here appeals from the final rejection of claims 1-4, 6 and 12-15.

IV. STATUS OF AMENDMENTS

Amendments to claims 1-4 and 6 were requested and claims 12-15 were newly added in Appellant's Amendment filed on 11 January 2001 in response to a first Office action mailed on 12 October 2000 (Paper No. 4).

An amendments to claim 12 was requested in Appellant's Amendment filed on 20 March 2003 in response to a Advisory action mailed on 27 January 2003 (Paper No. 21) and final Office action (Paper no. 19) mailed on 22 October 2002.

Amendments to claims 1 and 12 were requested in Appellant's Amendment filed on 15 September 2003 in response to a non-final Office action mailed on 18 June 2003 (Paper No. 26).

No claim amendment was requested thereafter.

V. SUMMARY OF INVENTION

The present invention includes the transmission and detection of a display data

channel by automatically inputting and detecting a display data channel during the manufacture of a monitor. (page 1, lines 11-14 of the original specification)

As shown in FIG. 3, the apparatus includes a circuit with a mouse 7 or a scanner 6 for inputting a display data channel of a monitor 2 into a personal computer 3 which is used for examining the display data channel 22 during the manufacture of monitors; relay 20 which is magnetized by a predetermined electric signal, for example an electric signal outputted from a programming logic controller 100; an interfacing section 200 for indicating that the display data channel 22 of the monitor 2 is inputted into the computer 3 and for outputting an initial signal and the same signal which is switched at a different time as that of generating the initial signal according to a result of inputting the display data channel 22; the programming logic controller 100 for generating a signal magnetizing the coil RC forming the relay 20 so as to electrically connect the switch contact R1 to the switch contact R2, for enabling the display data channel 22 to be input into the personal computer 3; and for determining whether the inputting of the display data channel 22 is normal or abnormal by using a determination of the difference of frequencies and switching times between interfacing section 200 and programmable logic controller 100. (page 8, line 14 to page 9, line 8).

When monitor 2 is placed at a position to be examined and adjusted in the facility for producing the monitor 2, the signal supplying device 50 supplies signals for examining and adjusting the monitor 2, for example horizontal synchronization signal and vertical synchronization signal, through a signal cable 55, a microprocessor cable 54, and the like to the monitor 2. When examining and adjusting the monitor 2, a worker places a pallet 60 on a conveyer belt 51 and positions the monitor 2 to be examined on the pallet 51. (page 10, lines 2-5)

The microprocessor cable 54 and the signal cable 55 are connected to an assembly of a printed circuit board in the monitor 2 at one end thereof and is in automatic and manual contact with connecting devices, such as a micro processor jack 58 and a signal jack 59 of the signal supplying device 50 which are fixed to a frame of the conveyer belt 51 at the other ends thereof. (page 10, lines 11-14)

When the micro processor cable 54 and the signal cable 55 are connected to the connecting devices fixed to the frame of the conveyer belt 51, signals for examining and detecting the monitor 2 (e.g., the horizontal synchronization signal and the vertical synchronization signal) are supplied through the combination cable 56 from the signal supplying device 50 to the assembly of the printed circuit board 2b. The signals for examining and detecting the monitor 2 are processed in the assembly 2b

of the printed circuit board and indicated on the monitor 2 so that the worker can identify the result of examining and detecting the monitor 2 to adjust the display data channel 22 of the monitor 2. (page 10, line 11 to page 11, line 1).

After the signal supplying device 50 supplies the signals for adjusting and examining the monitor 2 for the monitor 2, the programmable logic controller 100 turns on the relay 20 automatically after the signal supplying device 50 supplies the signals for adjusting and examining the monitor 2 for the monitor 2. (page 11, lines 2-6)

Even though the worker did not push a switch button of the mouse 7 or the scanner 6, the PLC 100 can input the display data channel 22 into the monitor 2. (page 11, lines 6-7)

The contacts R1 and R2 of the relay 20 are electrically connected with each other to make the display data channel to be inputted into the monitor 2 as the contacts R1 and R2 of the relay 20 are in parallel connected with the start contacts 10a and 10b of the mouse 7 or the start contacts 10A and 10B of the scanner 6. (page 11, lines 8-11)

Since the input of the display data channel can be accomplished by operating the mouse 7 or the scanner 6, the contacts R1 and R2 of Fig. 5 are preferably

connected to a selecting switch 25 in order to select either the mouse 7 or the scanner 6.(page 11, lines 12-14)

When the display data channel 22 is inputted into the monitor 2, a signal is applied to the interfacing section 200 connected to display data channel 22 pin 9, and supply an output signal to programmable logic controller 100 via switch 215. (page 11, lines 19-21)

The worker identifies the light emitting diode 220 when transistor 202 is turned off to determine whether or not the display data channel 22 is input into the monitor 2. (page 12, lines 17-18)

When the relay 20 is turned-on according to the control of the PLC 100 and the display data channel 22 is normally input into the monitor 2, the PLC 100 analyzes the signal outputted from the interfacing section 200 to determine whether or not the display data channel 22 is normally inputted into the monitor 2. (page 12, line 19 to page 13, line 1).

As shown in FIG. 4, switching times when the input of the display data channel 22 is normal are different from that when the input of the display data channel 22 is abnormal after the display data channel 22 is inputted into the monitor 2. (page 13, lines 2-6).

Accordingly, the input and examination of the display data channel 22 in manufacturing the monitors are automatically carried out so that it is unnecessary for the input and examination of the display data channel 22 to be operated by a mouse 7 and a scanner 6 when the monitor is identified by the worker after carrying out the input and examination of the display data channel 22. (page 13, lines 16-19).

VI. ISSUES

A. An ultimate issue is whether Claims 1, 3, 4, 12, 14 and 15 were properly rejected under 35 U.S.C. 102(b) as being anticipated by Berner (US Patent 5,267,178). This issue subsumes the following subsidiary issues in the context of this case:

1. Whether concerning Claims 1, 3, 4, 12, 14 and 15, Berner fails to disclose the use of the display data channel of the monitor.

2. Whether concerning Claims 1, 3, 4, 12, 14 and 15, the interface section is not disclosed by Berner as claimed in the present invention.

3. Whether concerning Claims 1, 3, 4 and 15, Berner fails to disclose a controller determining whether or not the result of inputting the display data channel is correct.

4. Whether concerning claims 4 and 15, *Berner '178* fails to disclose a programable logic controller as claimed.

B. Another ultimate issue is whether Claims 2, 6 and 13 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Berner (US Patent 5,267,178) in view of Keiji (U.S. Patent 5,115,227). This issue subsumes the following subsidiary issues in the context of this case:

1. Whether concerning Claims 2, 6 and 13, there is a suggestion to combine or modify *Keiji '227* and *Berner '178.*

2. Whether concerning Claims 2, 6 and 13, the Examiner failed to make specific findings on the ordinary level of skill.

3. Whether concerning Claims 2, 6 and 13, the rejection is defective for lack

of a *Graham-Gechter-Dembiczak* analysis of obviousness.

VII. GROUPING OF THE CLAIMS

Different references were cited against different claims and there are differences in the different claim rejections. Accordingly, the Appellant argues and therefore groups the claims as follows:

- Apparatus claims 1, 3

- Apparatus claims 2 and method claim 13

- Method claims 12, 14

- Apparatus claim 6

- Apparatus claim 4 and Method claim 15

VIII. ARGUMENT

A. CLAIM REJECTIONS - 35 U.S.C. § 102

Claims 1, 3, 4, 12, 14 and 15 are rejected under 35 U.S.C. 102(b) as being

anticipated by Berner (U.S. Patent 5,267,178, hereinafter referred to as *Berner '178*).

No claim is anticipated under 35 U.S.C. §102 (b) unless all of the elements are found in exactly the same situation and united in the same way in a single prior art reference. As mentioned in the MPEP §2131, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Every element must be literally present, arranged as in the claim. *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 9 USPQ2d 1913, 1920 (CAFC 1989). The identical invention must be shown in as complete detail as is contained in the patent claim. *Id.,* "All words in a claim must be considered in judging the patentability of that claim against the prior art." *In re Wilson,* 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970), and MPEP 2143.03.

1. Concerning claims 1, 3, 4, 12, 14 and 15, *Berner '178* fails to disclose the use of the display data channel of the monitor.

In paper no. 35 the Examiner stated that in response, the Examiner disagrees because recited at col. 3, lines 55-68, the manual operation of the spectrophotometer

SPM by means of its limited keyboard requires in some cases complex key sequences, in particular if larger volumes of data, for example in the initial programming of specific light type data, are to be entered. The Examiner goes on to state, to facilitate and simplify the operation, the operation of the instrument is extended by another possibility according to a basic feature of the invention, by programming the computer 2 so that it may be addressed as the operating element not only by the keyboard 5 or an external host computer connected with the serial interface SIF, but additionally also by a reader device connected with the interface SIF (e.g., the bar code reader BCR). Thus, the Examiner states that the teaching of *Berner '178* meets the claimed limitation "an inputting device (the bar code reader BCR) inputting a display data channel (larger volume of data or a data carrier, col. 4, line 16) of a monitor (a display unit 6, fig. 1) in a computer (a CPU 2, fig. 1)." The Examiner further states that these arguments are not persuasive because the Appellant's noted in the specification at page 32, lines 8-9, "the input of the display data channel 22 to each monitor is performed with either scanner or a mouse."

However, the Examiner in paper no. 35 is respectfully misunderstanding the definition of a display data channel. A display data channel is not larger volume of

data or a data carrier, as recited in col. 4, line 16 of *Berner '178*. This is clearly not a display data channel as understood by of one of ordinary skill in the art. The Display Data Channel (DDC) is generally for example a standard that defines a communication channel between a monitor and the display adapter to which it is connected. The monitor uses this channel to convey its identity and capabilities to the display adapter.

Therefore, larger volume of data or a data carrier in col. 4, line 16 *Berner '178* does not disclose the use of the display data channel as claimed in the present invention.

Furthermore, as shown below, the *Berner '178* patent never discloses even a display data channel of a monitor.

Berner '178 discloses a spectrophotometer. *Berner '178* in col. 1, lines 30-35, and mentions the problems with earlier spectrophotometer which is the cumbersome nature of entry of complex data via the keyboard into the photometer. Fig. 1 discloses the spectrophotometer of the *Berner '178* patent, which including the spectrophotometer itself (SPM) having a serial interface and a bar code reader BCR. The photometer SPM includes a CPU 2, keyboard 5, an optical display unit 6 for the

measuring results and messages of the CPU 2. col. 3, lines 1-8 of *Berner '178*. The serial interface is connected to the bar code reader BCR.

A spectrophotometer is an instrument used for measuring the transmission or reflection of light by comparing various wavelengths of the light. According to col. 3, lines 55-68 of *Berner '178*, since the spectrophotometer requires the entry of complex keys, the bar code reader is used to enter the complex keys.

According to col. 3, line 68 to col. 4, lines 1-8 of *Berner '178*, the CPU 2 detects whether the reader is connected with the interface and receives and interprets data supplied to it by the bar code reader BCR.

According to col. 4, lines 29-32 and lines 42-50 of *Berner '178*, upon actuation of a key, the CPU 2 is briefly activated to perform an operation and display the result on the display means 6. The computer CPU 2 ascertains whether the bar code reader BCR is connected with the spectrophotometer or not. If it is not, then the CPU is turned off and put in a standby state and the display is turned off. col. 4, lines 47-62 of *Berner '178*.

According to col. 5, lines 21-25 of *Berner '178*, if a reading or transmission error is detected (box 115), an appropriate error signal is sent to the display device 6. If the control data is complete, then an OK signal is sent to the display device 6.

As seen here in *Berner '178*, the display is only used to display information for the spectrophotometer such as an error in reading to transmitting the configuration signals. The display data channel of the monitor is never inputted, only the large volumes of data for operation of the spectrophotometer is entered.

According to col. 5, lines 45-54 of *Berner '178*, each code strip that is read by the bar code reader contains a defined stop signal, the information, a check sum and defined stop signals. By means of the check sum, the bar code reader is able to automatically recognize whether the code strip had been read correctly and sends a corresponding signal to the computer CPU 2 of the spectrophotometer SPM.

As seen in col. 6, lines 1-5 of *Berner '178*, Figs. 4-7 show examples of control data in the form of bar codes which actuate the functions "actuate instrument permanently", "trigger signal", "set parameters" and "reset display" in the spectrophotometer and in col. 1, lines 52-54 of *Berner '178*, such data includes measuring conditions of the spectrophotometer.

These are the only control data given for the specific operation of the spectrophotometer, but these do not concern the display data channel specifically.

Control data of the spectrophotometer is not the same as the display data channel of

a monitor. The exact invention as arranged in the claim must be disclosed in *Berner*

'178 only for a 35USC§102 rejection. The high standard of 102 must be met and here

the Examiner has failed in providing the *prima facie* of anticipation.

According to col. 6, lines 14-24 of *Berner '178*, the transfer process includes

reading of the code by the bar code reader BCR and transferring to the computer CPU

2 of the spectrophotometer. The CPU stores the transmitted codes and issues request

signals for reading in of missing or erroneous parts and acknowledges each successful

and correct entry operation acoustically.

As shown above, *Berner '178* never mentions a display data channel.

According to MPEP §2131, "a claim is anticipated only if each and every element as

set forth in the claim is found, either expressly or inherently described, in a single

prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628,

631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Every element must be literally present,

arranged as in the claim. *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 9 USPQ2d

1913, 1920 (CAFC 1989). The identical invention must be shown in as complete

detail as is contained in the patent claim. *Id.* However, here the identical invention

as arranged in the claims is not disclosed by *Berner '178.* Only the control signals

for a spectrophotometer are disclosed.

The Appellant respectfully submits that the Examiner may be misunderstanding of what a display data channel (DDC) of monitor is and therefore misapplying *Berner '178* in a 35USC§102 rejection.

2. Concerning claims 1, 3, 4, 12, 14 and 15, the interface section is not disclosed by *Berner '178* as claimed in the present invention.

The Examiner in paper no. 35 states that *Berner '178* teaches recited at col. 3, lines 17-24, a serial interface 70 and several switches to set or program the different functions possible and that it is further equipped with an interface plug connector SIF and a supply voltage plug connector PIF, through which it receives the operating voltage from the spectrophotometer SPM. The Examiner goes on to state that the plug connectors PIF and PIF' and SIF and SIF' are connected with each other, respectively in the operational state by the cable K. The Examiner further states that the interface section (PIF, PIF', SIF, SIF', fig. 1) associated with a method (fig. 2): recited in col. 5, lines 1-4, whether control data had been received from the bar code reader BCR (box 113), and if none of these is true, it is determined (box 114) whether the time window had been closed, *i.e.*, the delay time has expired.

However, the Examiner is misapplying an interface of *Berner '178* for the

interface of the present claimed invention. As shown below, the interface of the

present invention involves further features as claimed that the Examiner has failed to

take into account.

The Examiner in paper no. 35 further argues that as recited in col. 5, lines 15-

44, if during the open period of the time window control data is received from the bar

code reader BCR (box 113), this data is tested for errors (box 115) and this may be

effected, for example, in a conventional manner by an error recognition code

transmitted by the bar code reader BCR according to predetermined, conventional

standards and if a reading or transmission error is detected (box 115), an appropriate

error signal is sent to the display device 6 (box 116) and the program loop is repeated

with the resetting of the time window (box 110). The Examiner further states that if

the control data are free of errors, they are stored in the working memory 4 (box 117)

and then tested for completeness (box 118). Furthermore, the Examiner states that

if they are not yet complete, a request for the entry of the missing parts of the control

data is transmitted to the display device 6 (box 119) and the program loop repeated

together with the resetting of the time window (box 110) and if the control data are

complete, the action corresponding to their significance is carried out (box 120) and an OK signal sent to the display 6 (box 121) and the action defined by the control data is carried out analogously to an action due to control data introduced by means of an external host computer and thus does not require any detailed explanation and following the OK signal, the program loop is again repeated beginning with the reopening of the time window (box 110) and so on and if no control data are received from the bar code reader BCR or no key is depressed, the time window is closed upon the expiration of its period (box 114) and the instrument is returned to its stand-by state (box 107).

Thus, the Examiner states, the teaching of *Berner '178* meets the claimed limitation "the interface section (PIF, PIF', SIF, SIF', fig. 1) indicating whether the display data channel (data carrier, col. 4, line 16) of the monitor (the display unit 6, Fig.1) is inputted into the computer (the CPU 2, fig. 1)."

However, here the Examiner is reciting the steps contained in figure 3 of *Berner '178* which does not specifically disclose the interface having such features. The Examiner is making an assumption that is not based on the disclosure. Specifically, the Examiner states that *Berner '178* discloses an interface section (SIF)

as shown in col. 4, lines 53-47. However, the SIF which stands for "serial interface"

or even the PIF standing for "parallel interface" is not *indicating whether the display*

data channel of the monitor is inputted into the computer and outputting a voltage

signal reflective of an originally inputted voltage signal, the outputted voltage signal

is switched at a different time according to a result of inputting the display data

channel. The serial interface SIF 7 is just that, only a serial interface that connects

through cable K, the spectrophotometer SPM and the bar code reader BCR.

First, the Appellant, questions how does the "serial interface" SIF 7 or parallel

interface PIF of *Berner '178 indicates* whether the display data channel of the

monitor is inputted into the computer? Clearly no such disclosure is made by serial

or parallel interface of *Berner '178.* For example, as seen in col. 4, lines 47-50 of

Berner '178, the serial interface is only disclosed to connect with the bar code reader

but there is no disclosure as the indication of the display data channel being inputted

into the computer. Moreover, again the data carrier is not a display data channel.

In the Examiner's arguments, the examiner argues that the computer CPU 2

receiving the message the bar code reader BCR is connected or not (col. 4, lines 53-

67) is disclosing the interfacing section indicating whether the display data channel

of the monitor is inputted into the computer as mentioned in paper no. 30 and paper

no. 32.

However, looking at col. 4, lines 47-54, it is "The computer 2 next ascertains whether the bar code reader BCR... is connected with the interface connector SIF...by sending a predetermined signal to the bar code reader, which then responds with a preset message. If the computer receives the message, the reader is connected." Therefore, it is the CPU 2 that sends the message to the bar code BCR reader and its feedback back to the CPU 2. Nowhere is there a disclosure that the <u>interfacing section</u> SIF of *Berner '178* actually indicates whether the display data channel of the monitor is inputted.

Furthermore, the connection or the disconnection of the bar code reader does not disclose the actual input of the display data channel. Claim 1 is stating, *indicating whether the display data channel of the monitor is inputted* and <u>not whether for example the input device is connected or not</u> as disclosed in *Berner '178*.

Second, respectfully, the Appellant further questions of how does the serial interface (SIF) or parallel interface (PIF) of *Berner '178* outputs a voltage signal reflective of an originally inputted voltage signal where the outputted voltage signal is switched at different time according to a result of the display data channel? The

Examiner cites col. 4, lines 53-67 which states that if the computer receives the message, the bar code reader BCR is connected.

The claimed invention is not mentioning the connection or disconnection of the input device, but of the input of the display data channel. Furthermore, in col. 4, line 53 of *Berner '178*, a "preset message" is responded by the bar code reader to the computer, but this "preset message" is not the same as "a voltage signal reflective of an originally inputted voltage signal" or where the outputted voltage signal is switched at a different time according to the result of the display data channel. There is clearly no such disclosure in *Berner* '178.

(Based on the above arguments, claims 1, 3, 4, 12, 14 and 15 stand and fall separately from the other claims.)

3. Concerning claims 1, 3, 4 and 15, *Berner '178* fails to disclose a controller determining whether or not the result of inputting the display data channel is correct.

The Examiner in paper no. 35 states that because of the explanation of the interface, the controller determining whether or not the result of inputting the display data channel is correct. However, there is no disclosure in *Berner '178* that the

controller makes such a determination.

Berner '178 in col. 5, lines 45-54, discloses that "Each code strip that is read by the bar code reader contains a defined stop signal, the information, a check sum and defined stop signals. By means of the check sum, *the bar code reader is able to automatically recognize* whether the code strip had been read correctly and sends a corresponding signal to the computer" CPU 2 of the spectrophotometer SPM.

First of all, as shown above, the display data channel is not involved in *Berner '178*.

Second, it is the bar code reader that *automatically* recognizes whether the code strip has been read correctly or not instead of CPU 2 making such a determination. The examiner stated that the driving device is the CPU 20 of the bar code reader and the controller is CPU 2 of the spectrophotometer SPM, but then under this analysis of the Examiner, it is not the CPU 2 making the determination but the bar code reader BCR.

(Based on the above arguments, claims 1, 3, 4 and 15 stand and fall separately from the other claims.)

4. Concerning claims 4 and 15, *Berner '178* fails to disclose a programable logic controller as claimed.

As to claims 4 and 15, the Examiner in paper no. 30 on page 3, stated that Berner teaches the controller for the controlling and determining including a programmable logic controller by the EPROM, column 1, lines 52-56.

However, the EPROM in col. 1, lines 52-56 is referring to an external storage for information inputted. The spectrometer control data such as measuring modes and conditions of the spectrometer are stored in the external memory and then loaded into the spectrometer instrument as needed. An EPROM stands for an erasable type programable read-only-memory which is not a PLC (programmable logic controller) nor necessarily to be used with a controller as a PLC as claimed in the present invention as the PLC in the present invention controls the driving device by generating the predetermined electric signal, analyzes the output signal from the interfacing section, and determines whether or not the result of inputting the display data channel is correct. Meanwhile, the EPROM of *Berner '178* is used only to store the measuring mode, *etc.*, of the spectrometer.

(Based on the above arguments, claims 4 and 15 stand and fall separately from the other claims.)

B. REJECTION OF CLAIMS (35 U.S.C. § 103)

Claims 2, 6 and 13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Berner (US Patent 5,267,178) in view of Keiji (U.S. Patent 5,115,227, hereinafter referred to as *Keiji '227*)

A *prima facie* case of obviousness under 35 U.S.C. §103 must be established by the Examiner. According to MPEP 706.02(j), the following establishes a *prima facie* case of obviousness under 35 U.S.C. §103:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the

claimed combination and the reasonable expectation of

success must both be found in the prior art and not based

on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20

USPQ2d 1438 (Fed. Cir. 1991).

1. Concerning claims 2, 6 and 13, there is no suggestion to combine or modify *Keiji '227* and *Berner '178*.

First, the Examiner failed to provide a proper motivation to combine the

references.

The Examiner mentions a motivation to combine *Keiji '227* and *Berner '178*

as "It would have been obvious to a person of ordinary skill in the art at the time of

the invention to utilize the mouse taught by *Keiji '227* for *Berner '178*'s input device

because this would provide the operator with visual feedback to verify the mouse and

thereby saving time and money on mistake scanning."

However, looking at *Keiji '227*, both the mouse block 48 and an image scanner

block 49 is shown but no such motivation is mentioned in either *Keiji '227* or *Berner*

'178 of modifying *Berner '178* to have a mouse. The teaching or suggestion to make the claimed combination and the reasonable expectation of success <u>must both be found in the prior art</u> and not based on applicant's disclosure according to MPEP §706.02(j).

In paper no. 35, the Examiner states that it would have been obvious to a person of ordinary skill in the art at the time of the invention to modify *Berner '178*'s input device including the mouse, in view of the teaching in the *Keiji '227*'s reference because this would provide at least two or more functions can be arbitrarily selected, so that the input can be utilized very advantageously as taught by *Keiji '227* (col. 2, lines 6-9). However, this is an arbitrary motivation selected by the Examiner that does not specifically relate to the present invention. Here, the Examiner is merely taking a certain advantage of a certain part and using that as a motivation.

"Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability. *In re Dembiczak*, 50 USPQ.2d 1614 (Fed. Cir. 1999). The modification made by the Examiner concerning *Keiji '227* would be improper since as mentioned in *In re Dembiczak*, the showing must

be "clear and particular" without broad generalized conclusory statements. *Id.* There

must be specific statements showing the scope of the suggestion, teaching, or

motivation to combine the prior art references. *Id.* at 1000. There must be an

explanation to what specific understanding or technical principle would have

suggested the combination of references. *Id.* Being of necessity or simply an

advantage alone is not a proper motivation to modify nor is it correct in terms of the

specific connections claimed as mentioned above.

Moreover, the entire invention of *Berner '178* relates to the use of a bar code

reader as mentioned in the summary and abstract of *Berner '178* and even states in

the background of the invention of *Berner '178* that other forms of input such as the

keyboard are counterproductive. Therefore, having a switch (claim 6) for a mouse

and the mouse (claims 2, 6 and 13) itself, instead of using the reading device of the

bar code reader of *Berner '178* is teaching away from the very essence of *Berner*

'178. According to MPEP §2145, "It is improper to combine references where the

references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218

USPQ 769, 779 (Fed. Cir. 1983). This portion of *Berner '178* cannot be just ignored

because according to MPEP §2141.02, "A prior art reference must be considered in

its entirety, i.e., as a whole, including portions that would lead away from the claimed

invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)."

Therefore, *Keiji '227* should not be combined with *Berner '178.*

(Based on the above arguments, claim 6 stands and falls separately from the other claims.)

2. Concerning claims 2, 6 and 13, the Examiner Failed To Make Specific Findings On the Ordinary Level of Skill.

The final rejection is based on the ordinary level of skill in the pertinent art. Yet, the record contains no evidence, and no findings, as to that level of skill. The rejection does not even identify the pertinent art. (Is it the monitor art? Some other art?) Those defects undermine the rejection.

In Dembiczak, supra, the Federal Circuit overturned an obviousness rejection by the USPTO because of its failure to make the kind of obviousness legal analysis commanded in *Graham v. John Deere Co.*, 376 U.S. 1, 17-18 (1966). Such an analysis must begin with making specific findings of fact regarding the level of

ordinary skill in the art.[1] The *Dembiczak* Court said (175 F.3d at 1000-01, 50

USPQ2d at 1618):

> The Commissioner of Patents and Trademarks ("Commissioner")
>
> attempts to justify the Board's decision on grounds different from that
>
> relied upon by the Board, arguing that one of ordinary skill in the art
>
> would have been motivated to combine the references. Of course, in
>
> order to do so, the Commissioner must do what the Board did not do
>
> below: make specific findings of fact regarding the level of skill in the
>
> art ("a designer and manufacturer of trash and leaf bags, particularly one
>
> specializing in the ornamental and graphic design of such bags") ....

See also *In re Kaplan*, 789 F.2d 1574, 1580, 229 USPQ 678, 683 (Fed. Cir. 1986)

("Even if obviousness of the variation is predicated on the level of skill in the art,

prior art evidence is needed to show what that level of skill was.").

Since any obviousness analysis present here rests on nonexistent findings and

nonexistent evidence as to the level of ordinary skill in the art, the rejections are

faulty and must be reversed.

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[1] See also *In re Mayne*, 104 F.3d 1339, 1341, 41 USPQ2d 1451, 1453 (Fed. Cir. 1997);
In re Huang, 100 F.3d 135, 138, 40 USPQ2d 1685, 1688 (Fed. Cir. 1996).

3. Concerning claims 2, 6 and 13, the Rejection Is Defective for Lack of a *Graham-Gechter-Dembiczak* Analysis of Obviousness.

The final rejection has substituted speculation and inference for the detailed factual and legal analysis which the Federal Court requires. The rejection is *not* based on a factual analysis of the record, stated in sufficient detail to elucidate the Examiner's reasoning by which he reached his ultimate factual and legal conclusions. There is not a proper analysis. That procedure and methodology cannot withstand scrutiny under *Gechter v. Davidson*, 116 F.3d 1454 (Fed. Cir. 1997), and *In re Dembiczak*, 175 F.3d 997, 50 USPQ 1614 (Fed. Cir. 1999).

Gechter holds that the USPTO, like other administrative agencies, has "a duty to provide reviewing courts with a sufficient explanation for [its] decisions so that those decisions may be judged against the relevant statutory standards, and that failure to provide such an explanation is grounds for striking down the action." 116 F.3d at 1459.

The kind of obviousness analysis required here is summarized in *Dembiczak, supra*, 175 F.3d at 998:

> The ultimate determination of whether an invention
> is or is not obvious is a legal conclusion based on

underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the prior art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness.

These are the well-known *Graham v. Deere* factors. The four determinations listed above must rest on substantial evidence of record. *In re Gartside*, 203 F.3d 1305, 53 USPQ2d 1769 (Fed. Cir. 2000). There is no such supporting record here.

Conspicuously lacking in support of the instant final rejection are analyses of factors (2) and (4), substantial evidence in the record as to the conclusions (absent here) regarding those factors, and a reasoned explanation as commanded in *Gechter*. The record before the Board shows only the Examiner's *assertion* that the present invention is obvious from *Berner '178* and *Keiji '227*. No proper reasoned basis is provided for the assertion, nor any *Graham v. Deere* analysis of the facts. An applicant is entitled to a patent *unless* the Examining Staff establishes, *prima facie*, that he is not entitled to a patent because of obviousness. It is the Examining Staff's burden to establish obviousness over the prior art on the basis of a preponderance of evidence. *In re Dembiczak*, 175 F.3d 994, 1001, 50 U.S.P.Q.2d 1614 (Fed. Cir. 1999); *In re Epstein*, 32 F.3d 1559, 1564 (Fed. Cir. 1994); *In re Rijckeart*, 9 F.3d 1551, 1552, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071,
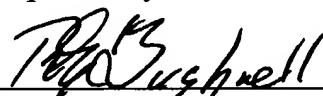
1074, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). Yet, respectfully, the Examining Staff did not meet that burden here.

(Based on the above arguments, claims 2, 6 and 13 stand and fall separately from the other claims.)

IX. CONCLUSION

In view of the law and facts stated herein as well as all the foregoing reasons, Appellant believes that the rejection is improper and respectfully requests that the Board refuse to sustain the outstanding rejection of apparatus claims 1, 3, 4, method claims 12, 14 and 15 under 35 U.S.C. 102(b) and of apparatus claims 2, 6 and method claim 13, under 35 U.S.C. 103(a).

Respectfully submitted,

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X. APPENDIX

<u>CLAIMS UNDER APPEAL (1-4, 6 and 12-15)</u>

1   Claim 1. (Previously Presented) An apparatus, comprising:

2   an inputting device inputting a display data channel of a monitor into a

3   computer;

4   a driving device driving the inputting device with a predetermined electric

5   signal;

6   an interfacing section indicating whether the display data channel of the

7   monitor is inputted into the computer and outputting a voltage signal reflective of an

8   originally inputted voltage signal, the outputted voltage signal is switched at a

9   different time according to a result of inputting the display data channel; and

10   a controller for controlling the driving device by generating the predetermined

11   electric signal, for analyzing the output signal from the interfacing section, and for

12   determining whether or not the result of inputting the display data channel is correct.

1   Claim 2. (Previously Presented) An apparatus as claimed in claim 1, wherein

2   the inputting device includes a mouse.

1   Claim 3. (Previously Presented) An apparatus as claimed in claim 1, wherein

2   the inputting device includes a scanner.

1   Claim 4. (Previously Presented) An apparatus as claimed in claim 1, wherein

2   the controller for the controlling and determining includes a programmable logic

3   controller.

1   Claim 6. (Previously Presented) An apparatus as claimed in claim 1, wherein

2   the inputting device includes a mouse and a scanner and further comprises a switch

3   to select one of the mouse and the scanner.

1   Claim 12. (Previously Presented) A method, comprising:

2   inputting a display data channel to a monitor by an inputting device;

3   driving said inputting device with a predetermined electric signal by a driving

4   device;

5   indicating whether said display data channel of said monitor is inputted into

6   said computer and outputting a signal according to a result of said inputting by an

7   interfacing section, said interfacing section outputting a voltage signal reflective of

8   an originally inputted voltage signal, which is switched at a different time according

9   to a result of inputting the display data channel;

10   controlling said driving device by generating said predetermined electric

11   signal;

12   analyzing said output signal from said interfacing section; and

13   determining whether said result of said inputting said display data channel is

14   correct.

1   Claim 13. (Previously Presented) A method as claimed in claim 12, with said

2   inputting device including a mouse.

1   Claim 14. (Previously Presented) A method as claimed in claim 12, with said

2   inputting device including a scanner.

1   Claim 15. (Previously Presented) A method as claimed in claim 12, with said

2   controlling and determining including a programmable logic controller.